From: <u>Casey Thormahlen</u>

To: Energy - Docket Optical System; cc: Gonzalez, Lorraine@Energy;

Subject: 12-EPIC-01

**Date:** Monday, March 17, 2014 1:35:35 PM

Hello -

I'm writing you to express my support for Randall Benson's proposed initiative "Closing the Nuclear Fuel Cycle with GenIV Reactors" (TN 72577). No other energy source approaches the reliability, affordability, cleanliness, or efficiency that nuclear power promises. For too long, we as a society have allowed fear to distort the facts. The most important of these are listed below:

California Energy Commission

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12-EPIC-01

TN 72794

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- 1) Nuclear power is our safest source of energy. Deaths per Terrawatthour for nuclear are well below those of oil, gas, or renewables. <a href="http://nextbigfuture.com/2011/03/deaths-per-twh-by-energy-source.html">http://nextbigfuture.com/2011/03/deaths-per-twh-by-energy-source.html</a>
- 2) Nuclear power is our densest source of energy. A kg of uranium contains 76 **million** megajoules of energy; gasoline just 46 megajoules. <a href="https://xkcd.com/1162/">https://xkcd.com/1162/</a>
- 3) Nuclear power can be our cheapest source of energy. Fuel cost is negligible, the cost of nuclear is dominated by capital costs. Even with one-off demonstration plants nuclear is cost competitive with fossil fuels; standardized Generation IV plants would be much cheaper still.
- 4) Nuclear waste is a political problem, not a technological problem. Fuel reprocessing, fast reactors, and molten salt reactors are all proven technologies that can nearly eliminate the nuclear waste stream.
- 5) Radiation is much less dangerous than advertised. Canada's nuclear regulator has done a much better job of communicating the facts about radiation and health. <a href="http://www.cnsc-ccsn.gc.ca/eng/resources/media/index.cfm?videoid=radiation">http://www.cnsc-ccsn.gc.ca/eng/resources/media/index.cfm?videoid=radiation</a>

As a millennial, I'm inheriting an economic and environmental future shaped by my predecessors. My predecessors have repeatedly "kicked-the-can" on hard decisions, allowing infrastructure & institutions to rot and problems to fester. It's time to right these wrongs and lay the foundations for a much brighter future. Abundant clean energy is a great place to start.

Sincerely,

Casey Thormahlen 58 Tuberose Street Ladera Ranch, CA 92694